

gravity. We also have found that throughout nature such a combination of forces results invariably in one particular curve, the parabola; and we have regarded that curve as especially expressive of the contention of natural forces, and as the line most easily and agreeably traversed by the eye, also as that which both nature and education teach us to look for as natural to most moving bodies, whether in their rise or fall, growth or decay, rigour or exhaustion; and we have found it so directly associated with the idea of vital power, vegetable growth, or destructive force, that it is scarcely possible to dissociate its appearance from an intellectual perception of causation. We considered, therefore, that it is justly esteemed a line of beauty, peculiarly suggestive of thought. If the acknowledged beauty of this curve be traceable to such elements, other combinations of the same elements may result in beauty also; and, with respect to structures, such as temples and public buildings, it will be perceived that the forces in operation are very similar to those which produce the parabola.

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ON THE EVILS OF CONTRACTING.

My chief object in writing these "few words" is to collect some arguments against the present common system of public and private competition in building; and to be able to refer people, and to enable others to refer people, to something they can read and think upon at their leisure, without having verbally to enumerate to them all the evils connected with it.

The system of which I speak is one that has been increasing for some years, both in extent and rapidity; for it seems as if men now adopt the plan of advertising for tenders as naturally and with as little compunction as they would do for any lost article: so much so, that any attempt to destroy it might at first sight appear almost hopeless; but the moral evils inseparable from it are so serious, that I feel it my duty to disregard all difficulties, and I beg the kind attention of others whilst I endeavour to show,—

I.

The effects of the system: its influence for evil upon every class which either directly or indirectly has anything to do with building.

In considering the evils of the present system of competition, very little need be said upon those attached to the system of public tenders; except that they are so much worse than those obtained from builders selected and privately invited to make an estimate, in that this system contains all the evils of the other and its own besides; admitting, as it does, all sorts of men to an equal chance with the fair and honest, and moreover giving the worst man the best chance.

Now the evils of the whole system cannot be better set forth than by producing the painful results of it, for nothing is so convincing as example. Men say theories look very well; that we can prove upon paper that such a plan is sure to succeed, but in point of fact it does not; that this or that scheme must necessarily fail, yet we see it prosper. But results or examples are not liable to these objections: they test the proof of theories and establish rules of practical wisdom. First, then, I will instance a town in the county of C—, from which I have collected the following interesting but distressing facts. The last generation of builders in this town, or, as they were then chiefly, master-masons and master-carpenters, lived quiet, honest, and respectable lives, bringing up their families well, and placing them in a decent way of business. Now, I have been at the pains of enquiring into the histories of these men, and can testify to the respectability and prosperity of the whole body, which consisted of nineteen or twenty. But when I turn to the modern set, about whom I have made enquiries equally particular, I find that out of seventeen builders, master-masons, and master-carpenters, seven have been ruined only and entirely from taking contracts too low, and trying to cut each other out by competition. Of the remaining ten, six have very

nearly shared the same fate from the same cause, and are now very much lower both in position and character than they ought to have been, and the others are only in a small way of business.

Now are the evils complained of confined to the individuals themselves. Unhappily they are not the only sufferers. Their families and relatives, their merchants and workmen, as well as their creditors, all suffer more or less; and occasionally others who out of friendship have lent money, or become security to assist them. And we all know that when once a respectable man has been bankrupt, he is never the same man again. A total change seems to have come over his mind and character. He is either broken in spirit, dejected and careworn, or else he becomes hardened and reckless, not caring how he gets on, nor what becomes of his creditors on a second or third occasion.

II.

That men may get their "money's worth" in a general way without having recourse to competition, and indeed would be positive gainers by escaping the anxiety, loss, and litigation so inseparable from the present practice.

I come now to consider the means of getting work done in a fair way, and at a reasonable cost, without competition; and I need say but little of the plan of having a clerk of the works, at a certain fixed salary, to pay the workmen and examine the bills for materials; or of employing a regular builder to do the work, and be paid either according to his own bill, or a bill made out by measure and value. For I know that these cannot be called cheap methods of building; and I must confess that there are not now many builders that I could trust to work without restriction, and make out their own bills in the end. And yet these plans have each their advantages, especially when the work must be done in a very superior manner, or when it is wished to make any indefinite alterations as it proceeds; or when the amount of outlay is not limited, and the employer is desirous of paying to the full for his work. They have therefore both advantages and disadvantages. But no system can be entirely free from imperfection and disadvantages.

Now when a contract is required, why not obtain a tender from one man? There are many ways of preventing him from making his estimate unfairly high. He can be brought to take work as low as he ought to do in justice to himself. Whenever I have known this plan tried, and this has not been seldom, I have found it successful.

Let the builder make an estimate of the work proposed, and, if you are satisfied with it, give him the contract; or else let him furnish a list of prices of work, per square, per perch, per yard, and per foot, for the several descriptions of work, and have the whole measured at these prices when completed. This latter plan is the *fairest*, because quantities of work can be measured more accurately from the building itself than from drawings; but the former would perhaps be preferred, because it is generally most satisfactory to know the amount beforehand. However, in either case, there must be some check upon the estimate and prices, and this may be obtained by letting the architect examine them; or it may be worth while in some cases, to have an estimate from a local surveyor, who knows all the local prices, or from some *disinterested* builder; or it might be from both. But in a small, straightforward piece of work, it would not be difficult for any one himself to cast up the quantities, and make out something of the prices common in the neighbourhood; quite enough to see whether the estimate (at any rate a detailed one) be far out of the way. Besides, if the builder knows that another will be called in for a tender, should his own tender be unreasonable, he will probably send in at once a satisfactory estimate, or one which can easily be made so by a little explanation of the differences. This *alone* would often be enough, but experience tells me it will fail at times. It is moreover satisfactory to be able to choose one's own man, and give him the first chance.

The probability is that he will not, for any fault of his own, let you go to another.

III.

I hope to make some remarks on contracting in general, and to answer some of the objections of those who support the system of competition.

It will be seen from what I have already said, that it is not "Building by Contract" that is so objectionable; but "Building by Competition." Indeed, a contract is the only way of ensuring that any work will be completed for a given sum, and moreover it will tend to prevent useless and extravagant expenditure in doing the work; for a contractor is sure to be careful and vigilant, knowing that any inattention or negligence in the men will entail a loss upon himself, and it gives him a greater personal interest in the work.

The chief object now in view is to show the evil consequences of competition: how it contributes to the breaking up of the comforts and even the ties of social life in a large and respectable class of people; how its very nature is to deprave the character and harden the conscience; and those who thus suffer by the world's cupidity, are by that same world called dishonest and fraudulent.

We have seen already that this method is as needless as mischievous. But some recognised system certainly is necessary to screen the employer from imposition, and the employed from oppression. Yet neither of these are affected at all by competition,—nay, the very opposite. It is true, indeed, that some few have used "competition" with advantage to themselves, and have escaped with impunity. Many more, however, have suffered from its effects; but I fear they have regarded their loss as the result rather of misfortune than of fault; rather as the consequence of happening accidentally to fall in with a unfit man, than as the natural result of complying with a vicious custom.

There ought, I say, to be some recognised system by which as much work shall be had for the money as may be reasonably expected; and that in such a way as shall not only promote honesty, diligence, and contentment in the employed, but also give comfort, satisfaction, and even pleasure to the employer. And such a method I think is that which I have been seeking to recommend.

Now, we should not forget that men are more apt to err upon the side of anxiety for their own interest, and of suspecting those with whom they have to deal, than of forbearance and confidence. I do not say that they have absolutely no reason on their side, but still I cannot help thinking that when a man finds himself met upon open, fair, and reasonable grounds, he is likely to be equally open, fair, and reasonable in his own dealings; whilst, on the other hand, if he thinks himself hardly and suspiciously dealt with, he also will be hard and suspicious on his part, and eager to secure the advantage. But here some may object, they *are* given their builder his own way, and have left themselves in his hands without suspicion, but they found themselves sadly mistaken. But surely such persons have no right to lay all the blame on others, for if they had not time and inclination, or knowledge and ability to keep their builders within proper bounds, it was their duty to have some one that could and would do so. For a builder should not be left to himself: he should not have his own way; or his employer will soon repent it. It is true that builders should have their fair and reasonable profits; should gain a competency for old age, and the maintenance of their families; but it is our bounden duty to use such caution and prudence as shall screen us from imposition and loss. Although they ought not to "make haste to be rich," any more than their employers, they ought not to be deprived of their rights, or be underpaid for their work.

Now some men endeavour to satisfy their consciences by arguing that one man can work more cheaply than another, and that competition is the only way of discovering such persons. It is, indeed, true that one man can work more cheaply than another can afford to do; but how much? Surely not enough to make it discernible whether he can really